

## IN THE CLAIMS:

Please enter the following claim set:

1. (currently amended)      A method for processing PFC that is used in a process for manufacturing ~~semiconductor~~ electronic devices ~~or the like~~, the method is characterized in that the PFC that is used under a reduced pressure is brought under ~~the~~ atmospheric pressure through a vacuum pump, then a reactive material is added to the PFC, and a plasma process is conducted for a mixed gas composed of the PFC and the reactive material to thereby generate a polymer with the PFC and the reactive material.

2. (original)      A method for processing PFC according to claim 1, wherein the reactive material is gas of paraffin hydrocarbon or alcohol.

3-8. (canceled)

9. (new)      A method for processing PFC according to claim 1, wherein the reactive material is an alcohol.

10. (new)      A method for processing PFC according to claim 1, wherein the plasma process generates a reaction product including the polymer, and controlling the flow of the reaction product so that at least a portion of the reaction product flows in a circular motion.

11. (new)      A method for processing PFC according to claim 1, wherein the plasma process generates a reaction product including the polymer, and controlling the flow of the reaction product so that at least a portion of the reaction product flows in a circular motion in a cyclone region of a chamber, and wherein first and second partition doors are adapted to be opened and closed, wherein the second partition door is separated from the cyclone region of the chamber by the first partition door when the first partition door is closed.

12. (new) A method for processing PFC according to claim 11, wherein the reaction product is controlled so that the polymer in the reaction product accumulates on the first partition door when the first partition door is closed, and wherein the polymer in the reaction product accumulates on the second partition door when the first partition door is opened and the second partition door is closed.

13. (new) A method for processing PFC according to claim 11, comprising:  
closing the first partition door and accumulating the polymer in the reaction product on the first partition door;  
opening the first partition door while the second partition door is closed and then transferring the polymer accumulated on the first partition door to the second partition door;  
closing the first partition door and then opening the second partition door and removing the transferred polymer from the second partition door.

14. (new) A method for processing PFC according to claim 13, further comprising generating reaction product and accumulating polymer on the first partition door during the opening the second partition door and removing the transferred polymer from the second partition door.

15. (new) A method for processing a fluoride compound gas that is used in a device manufacturing process at below atmospheric pressure, comprising:  
after the fluoride compound gas is used at below atmospheric pressure, delivering the fluoride compound gas to a region at atmospheric pressure;  
adding an alcohol to the fluoride compound gas at atmospheric pressure;  
performing a plasma process on the fluoride compound gas and the alcohol at atmospheric pressure and generating a reaction product including a polymer.

16. (new) A method of processing a fluoride compound gas according to claim 15, wherein the alcohol includes a gas selected from the group consisting of  $\text{CH}_3\text{OH}$  and  $\text{C}_2\text{H}_5\text{OH}$ .

17. (new) A method for processing a fluoride compound gas according to claim 16, wherein the fluoride compound gas is selected from the group consisting of  $\text{CF}_4$ ,  $\text{C}_2\text{F}_6$ ,  $\text{C}_4\text{F}_8$  and  $\text{SF}_6$ .

18. (new) A method for processing a fluoride compound gas according to claim 15, wherein the fluoride compound gas consists of fluorine and a material selected from carbon and silicon.

19. (new) A method for processing a fluoride compound gas according to claim 15, further comprising positioning the reaction product in a chamber and controlling the flow of the reaction product so that at least a portion of the reaction product flows in a circular motion in the chamber.

20. (new) A method for processing a fluoride compound gas according to claim 15, wherein the chamber includes a cyclone region, wherein at least a portion of the reaction product is controlled so that it flows in a circular motion in the chamber, and wherein first and second partition doors are adapted to be opened and closed, wherein the second partition door is separated from the cyclone region of the chamber by the first partition door when the first partition door is closed.

21. (new) A method for processing a fluoride compound gas according to claim 20, wherein the reaction product is controlled so that the polymer in the reaction product accumulates on the first partition door when the first partition door is closed, and wherein the polymer in the reaction product accumulates on the second partition door when the first partition door is opened and the second partition door is closed.

22. (new) A method for processing a fluoride compound gas according to claim 20, comprising:

closing the first partition door and accumulating the polymer in the reaction product on the first partition door;

opening the first partition door while the second partition door is closed and then transferring the polymer accumulated on the first partition door to the second partition door;  
closing the first partition door and then opening the second partition door and removing the transferred polymer from the second partition door.

23. (new) A method for processing a fluoride compound gas according to claim 22, further comprising generating reaction product and accumulating polymer on the first partition door during the opening the second partition door and removing the transferred polymer from the second partition door.

24. (new) A method for processing a fluoride compound gas that is used in a device manufacturing process, comprising:

using a fluoride compound gas selected from the group consisting of  $\text{CF}_4$ ,  $\text{C}_2\text{F}_6$ ,  $\text{C}_4\text{F}_8$  and  $\text{SF}_6$  during a process for manufacturing under a reduced pressure using a vacuum pump at least one of a semiconductor device, a liquid crystal device, or a light emitting device;

after using the fluoride compound gas, transferring the fluoride compound gas through the vacuum pump to an atmospheric pressure region;

adding at least one reactive material gas selected from the group consisting of  $\text{CH}_3\text{OH}$  and  $\text{C}_2\text{H}_5\text{OH}$  to the fluoride compound gas;

performing a plasma process on the fluoride compound gas and the reactive material gas at atmospheric pressure and generating a reaction product including a solid polymer.

25. (new) A method for processing a fluoride compound gas according to claim 24, wherein the fluoride compound gas is selected from the group consisting of  $\text{CF}_4$ ,  $\text{C}_2\text{F}_6$ ,  $\text{C}_4\text{F}_8$ .

26. (new) A method for processing a fluoride compound gas according to claim 24, wherein the fluoride compound gas is  $\text{SF}_6$ .